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TO: Region Engineers
Region Delivery Engineers
TSC Managers
Resident/Project Engineers
Region Construction Engineers

FROM: Larry E. Tibbits
Chief Operations Officer

John C. Friend
Engineer of Delivery

SUBJECT: Bureau of Highway Instructional Memorandum 2002-14
Final Project Reviews, Monitoring Construction Engineering
Consultants, and Incentive/Disincentive Projects

The Office of the Auditor General recently completed an audit to:

- Assess the effectiveness of MDOT's policies and procedures in ensuring that construction projects are properly supervised and that test materials used in construction projects are in accordance with industry standards and/or MDOT specifications.
- Assess the effectiveness and efficiency of MDOT's project payment and finalization processes.

The following directions address the audit findings and implement the recommendations:

I. Final Project Reviews

The purpose of a final estimate review is to verify that final contract quantities are supported by properly prepared source documentation, and paid for in accordance with MDOT's standard specifications, contract supplemental specifications and special provisions, or properly approved contract modifications. The review provides the assurance that the project is in substantial conformance to the plans and specifications.

- A. The procedures outlined in the *Construction Manual* under Final Estimate Review shall be followed. If review deficiencies are found by the review team, the review shall be expanded; the deficiencies must be resolved prior to region acceptance of the review. Deficiencies that cannot be corrected shall be noted and explained. The region will determine if the project is in substantial compliance with federal and state

requirements. Funds may be withheld on projects that are determined to not be in substantial compliance.

- B. Project managers shall ensure that any consultant hired to perform a project review shall not have any other involvement in the construction phase of the contract they are reviewing. A written statement from the consultant attesting to this shall be in the project files. The scope of work for consultant services shall also include this prohibition.

II. Monitoring Construction Engineering Consultants

To improve the monitoring of consultants hired to perform construction engineering and testing services the following is required:

- _____A. The delivery engineer shall hold a meeting with the consultant before the work begins to assure that the consultant clearly understands the expectations of the delivery engineer in carrying out the oversight of the construction engineering. This meeting could be held immediately, prior to, or after the preconstruction meeting. The delivery engineer will require the consultant to provide minutes of the meeting. Some topics for discussion at this meeting may include, but are not limited to:
1. The delivery engineer's position as it relates to expected consultant inspection practices and work methods.
 2. What is expected of the consultant concerning billable hours in the event of a rain-day or other contractor shutdown.
 3. If and when to shut down a contractor for non-compliance with the contract.
 4. Pertinent safety issues.
 5. Preparation and submission of timely contractor pay estimates.
 6. Timely project finaling and submittal of contract documents.
 7. Familiarization of the consultant with applicable manuals such as the *Materials Quality Assurance Procedures Manual*, *Materials Source Guide*, *Michigan Manual of Uniform Traffic Control Devices*, *Michigan Test Methods*, *Road and Bridge Standards*, *Construction Manual*, and *Standard Specifications for Construction*.
- B. The deliver engineer or representative shall schedule sufficiently frequent meetings, based on project complexity, to ensure consultant activities are properly monitored. These meetings will include a limited review of project records and site visits. These meetings will be documented by the Inspector's Daily Report, interim evaluation, or other appropriate means.
- C. An interim evaluation shall be completed each time a project site is visited by the delivery engineer or representative. The form and information on how to compete the form is included in the *Construction Manual*.

III. Incentive/Disincentive Projects

The audit found that documentation of changes made to the method of determining incentive/disincentive on several contracts were not well justified or documented in the project files. Upon review by the department, the changes were found to be justified and appropriate. However, the goal is to avoid making changes to incentive/disincentive provisions. The guidelines outlined below need to be followed during project development, when proposing changes to incentive/disincentive contract provisions and when making final incentive/disincentive determinations.

A. **Project Development Phase**

Every effort must be made in the development phase to minimize the possible needs to change incentive/disincentive provisions after award of the contract.

During the scoping process for the project, region staff should assess the impacts of the work on the public. When it is essential that inconvenience and delays to the public be minimized, incentive/disincentive provisions should be considered. When incentive/disincentive provisions are used, they should involve only the critical portions of the project and exclude noncritical areas. Examples of incentive/disincentive provisions include, but are not limited to, lane rental, ramp rental, bridge rental, A+B contracts, straight incentive/disincentive, disincentive for failure to open based on time units, and no excuses provisions. Each project has unique features to consider when determining the type and amount of the incentive/disincentive. It is essential that project reviews include a thorough analysis of the staging of the project and construction methods to assure the project can be built as designed.

B. **Construction Phase**

Incentive/disincentive payment determination must follow provisions set forth in the contract. Provisions in the progress clause, special provisions, and supplemental specifications outline the process of how to determine the amount of incentive/disincentive. These contract provisions must be used to determine incentive/disincentive. If a highly unusual condition or situation is encountered on a job, there may be a basis to modify the contract to change the method of determining the amount of the incentive/disincentive. Changes in incentive/disincentive specifications may be approved only when circumstances arise of a highly unusual nature, which forces the department to revise the methods shown in the contract. When the need arises to modify the method in which incentive/disincentive is determined, the process outlined below must be followed.

1. Circumstances surrounding the proposed change should be discussed with the Region Engineer, Engineer of Construction, Associate Region Engineer -

Delivery, and the TSC manager. A consensus must be reached as to the appropriateness of the proposed change. Final MDOT approval will be the responsibility of the TSC Manager.

2. The proposed modification to the contract must be discussed with and approved by the FHWA area engineer prior to final MDOT approval.
3. A thorough analysis must be done and documented in the project files to show the basis for the modification: why the existing contract requirements were modified and what the benefits are to the department and the public.
4. Secure approval of a contract modification with a complete justification and explanation of the change in the method of determining the incentive/disincentive.

C. Incentive/Disincentive Determination

On all projects with incentive/disincentive provisions, the TSC manager shall review and approve all incentive/disincentive determinations to ensure they have been determined in accordance with the contract language. This review and approval shall be documented in the project files.

Chief Operations Officer

Engineer of Delivery

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Subject Index: Operations Reviews, Construction Engineering, and Contracts, Subcontracts

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